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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,556	02/01/2005	Yosuke Mitani	MAT-8650US	1189
23122 7590 01/14/2008 RATNERPRESTIA P O BOX 980 VALLEY FORGE, PA 19482-0980			EXAMINER KAPLAN, HAL IRA	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/523,556	Applicant(s) MITANI ET AL.	
	Examiner Hal I. Kaplan	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005 and 02 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/1/05, 1/4/07, 2/2/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities: Page 1, lines 11-14 are unclear. Page 1, line 18, "the battery is prepared" should be "the main battery is included". Page 1, line 19, "for just in case" should be deleted. Page 2, lines 1-4 are unclear. Page 2, line 8, "about the safety" should be deleted. Page 2, line 24, "at the abnormality but also at a normal" should be "in case of an abnormality but also during normal". Page 2, line 25, "forcefully" should be deleted. Page 2, line 26, "to monitor an" should be deleted. Page 2, line 27, "during the battery operates normally" should be "to be monitored when the battery operates normally". Page 3, lines 6-7, "at the normal" should be "during normal". Page 5, line 4, "even battery 1" should be "even when battery 1". Page 5, lines 18-19, "charged electric charges" should be "charge stored in capacitor unit 15". Page 6, lines 7-8 are unclear. Page 6, line 21, "information of abnormality" should be "detection of an abnormality". Page 7, line 6, "indicates" should be "indicate". Page 7, lines 13-14, "a voltage not lower" should be "a battery voltage is not lower". Page 7, line 12, "to operate for monitoring the status" is unclear. Page 7, line 18, "operate as short as possible" should be "operate for as short a time as possible". Page 7, lines 26-27, "based on the information detected whether or not power supply section 19 operates normally" should be "whether or not power supply

section 19 operates normally based on the information detected". Page 8, lines 24-26 are unclear. Page 9, line 1, "monitoring of defective" is unclear.

Appropriate correction is required.

Drawings

3. The drawings were received on February 1, 2005. These drawings are accepted. Page 3/3 of the drawings is deleted in its entirety as amended by the preliminary amendment filed February 1, 2005.

Claim Objections

4. Claims 1 and 9 are objected to because of the following informalities: Claim 1, lines 10-11, "the auxiliary battery" should be "the auxiliary power supply". Claim 9, line 2, "of a switch" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 recites the limitation "a power supply section for allowing the capacitor unit to power the electronic controller when the battery operates ... normally". This is inconsistent with page 5, lines 5-7 of the specification, which state that the "power supply section 19 ... is basically turned off when battery 1 works normally". In addition, page 5, lines 3-4 state that the power supply section is operated when battery 1 works

normally, consistently with the claims but inconsistent with page 5, lines 5-7. It is unclear whether the power supply section is operated or turned off when the battery works normally. For examination purposes, it has been assumed that the power supply section may be either operated or turned off when the battery is operated normally.

Claims 2-9 inherit this deficiency.

8. Claim 1 recites the limitation "a compulsory operating section for operating the power supply section". This recitation renders the claim indefinite because the specification and drawings do not disclose or illustrate what specific structure corresponds or can correspond to the compulsory operating section. The specification states that the compulsory operating section "temporarily operates power supply section 19" (see page 5, lines 3-4) and "forcibly starts power supply section 19 to operate for monitoring the status" (see page 7, lines 16-17). It is unclear exactly what subject matter is included or excluded by the "compulsory operating section". For examination purposes, it has been assumed that the compulsory operating section comprises any circuitry which controls or operates in connection with the power supply section. Claims 2-9 inherit this deficiency.

9. Claim 6 recites the limitation "a determination ... is carried out at a given interval". The phrase "carried out at a given interval" is unclear because the determination can only be carried out at one particular time, not an interval of times. For examination purposes, it has been assumed that the claimed determination is carried out periodically, with a given time interval between determinations.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the US patent of Furui (6,652,001) in view of the US patent of Kimura (5,373,226).

As to claim 1, Furui discloses a power supply device for a vehicle comprising: an

electronic controller (34) for receiving information in response to a driving status of the vehicle (see column 4, lines 32-38 and 50-54), and for outputting information to a load (4,5) about the function of the load (4,5) based on the information received by the electronic controller (34) (see column 4, lines 45-54); a battery (1) for powering the load (4,5) via the electronic controller (34) (see Figure 1); and an auxiliary power supply for powering the load (4,5) when the battery (1) encounters an abnormality, wherein the auxiliary power supply includes a capacitor unit (32), and a power supply section (33) for allowing the capacitor unit (32) to power the electronic controller (34) when the battery (1) operates either abnormally or normally, wherein an operating status (V_c) of the power supply section is monitored during a normal operation of the battery (1) (see column 5, line 20 - column 6, line 14 and Figure 1). Furui does not disclose the claimed compulsory operating section. Kimura discloses a power supply section (2) and a compulsory operating section (1) for operating the power supply section (see column 6, line 16 - column 10, line 28 and Figure 1). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified Furui by using the power supply section and compulsory operating section of Kimura, because the power supply section and compulsory operating section of Kimura can be realized on a single integrated circuit, thus reducing the size of the system.

Furui in view of Kimura do not disclose a plurality of capacitors or a brake, but it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used a plurality of capacitors, and to have used the system with a brake, because it has been held that mere duplication of parts has no patentable significance

unless a new and unexpected result is produced, and the recitations of a brake and brake pedal are intended use recitations which do not carry patentable weight. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). See MPEP 2144.04(VI)(B) and 2144.07.

As to claim 9, the power supply section of Kimura is formed of MOS transistors (M1-M11) (see Figure 1).

14. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furui in view of Kimura as applied to claim 1 above, and further in view of the US patent of Masegi et al. (5,045,835).

As to claim 2, Furui in view of Kimura disclose all of the claimed features, as set forth above, except for the monitoring being halted when the battery or auxiliary power supply operates abnormally. Masegi discloses a similar system in which monitoring the operating status (Vc) of the power supply section is halted when the battery operates abnormally (see column 3, line 64 - column 4, line 7). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified Furui in view of Kimura to halt the monitoring when the battery operates abnormally, in order to conserve power.

As to claim 3, Masegi discloses an output detector (300) for detecting an output voltage (Vc) from the capacitor unit (9), wherein the output detector (300) is used for monitoring the operating status of the power supply section (see column 3, lines 17-18 and 47-52, and Figure 1).

As to claim 4, the output detector (300) of Masegi detects the output voltage (V_c) from the capacitor unit (9) after the power supply section starts operating (see column 3, lines 47-52).

As to claims 5 and 6, whether or not the power supply section of Masegi is defective is determined by a comparison of an output voltage (V_c) detected by the output detector (300) after the power supply section operates for a given time with a given reference voltage (V_1, V_2) (see column 3, lines 47-52).

As to claim 7, when the determination of Furui finds that the power supply section (33) operates abnormally, information (S_1, S_2) about the abnormality is supplied to the electronic controller (19) (see column 3, lines 47-52 and Figure 1).

Allowable Subject Matter

15. Claim 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter:

Claim 8 contains allowable subject matter because none of the prior art of record discloses or suggests the determination about whether or not the power supply section is defective not being carried out when the battery outputs a normal voltage that is lower than or equal to the capacitor voltage, in combination with the remaining claimed features.

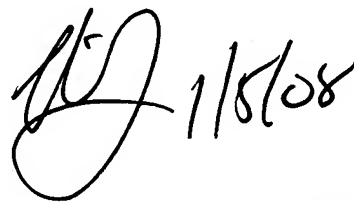
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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